THE FARM INDEX
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# Outlook

As consumers gripe about price escalation at the grocery store, farmers are beefing about prices too. What irks them are the spiraling prices of farm inputs—up 11 percent in first half 1975 compared with the same period last year. Prices received by farmers, meantime, drifted up only 7 percent.

There's light at the end of the tunnel, however. ERS see a slackening in the average rate of increase in prices paid for farm inputs in 1975. This welcome news, coupled with a forecast of bigger cash receipts from livestock sales and the prospect of crop sales holding their own, should put the farm sector in relatively good financial shape moving into 1976.

But, the 1976 picture for farm inputs is not all a bed of roses. Here's how ERS specialists paint the scene:

*Fertilizer.* More is on the way. However, if prices sag as expected, nitrogen and potash supplies may get tight. No problem with phosphates.

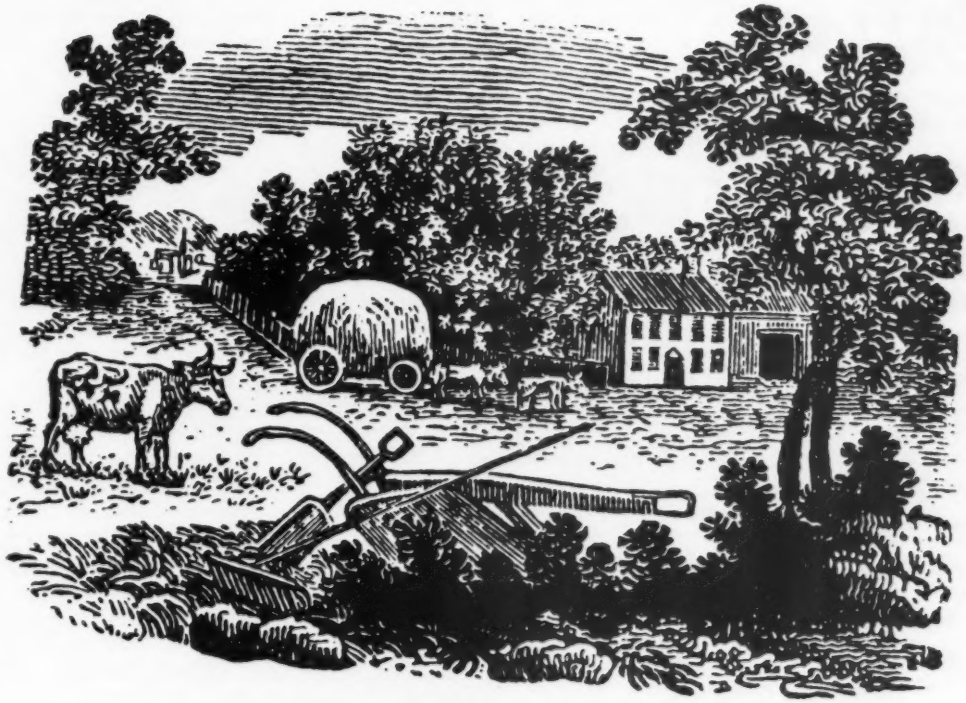
*Fuel.* Supply situation looks good for gas and diesel but natural gas and LP gas are in question. Natural gas needed to process LP for crop drying may be harder to get than this year.

*Petroleum* for farming operations should be plentiful. Price is something else, with hikes of 15 to 25 percent in the offing by year's end.

*Pesticides.* Expect larger supplies for the new planting season, based on recent surveys of leading pesticide firms. Demand will remain brisk, and rates of application should about match 1975 levels.

*Farm machinery.* Supply seems to be catching up with demand. Inventories of machines ready for sale should get back to normal by early 1976. Prices farmers pay for agricultural equipment may not repeat the jumps of early 1975 as measured by recent slowdowns in the wholesale price index for farm items.

*Farm Credit.* Farm credit agencies report adequate funds for lending but the money won't be easy to come by . . . tighter restraints than usual. Recent rises in cattle prices could spur feeding, hence, greater demand for credit.



# A FARM IS...

Ask the average guy what a farm is, and he's sure to tell you, unless he thinks you're crazy for asking in the first place. A farm is . . . golden acres of wheat and fat cattle on the hillside.

Most census people and other Government officials responsible for economic and statistical information about farming wouldn't buy that definition. In fact, they need a more specific definition and need to change it periodically as farming itself changes. Since 1850 they've rewritten the official definition 8 times—4 times in the last 30 years alone—in an effort to keep in step with the fast-changing tempo of modern agriculture.

**Latest definition.** Now we have still another set of guidelines. Starting with the 1974 Census of Agriculture —results of which should start flowing in by late 1975—a farm will be defined like so: "Any establishment from which $1,000 or more of agricultural products is sold or would normally be sold during a year." This differs from the old classification where a farm was any place under 10 acres with annual sales of $250 or more of agricultural goods, or any place of 10 or more acres selling $50 or more.

Not only has the monetary ceiling been upped, but the acreage figure has been dropped and actual sales are not necessary—value of normal or expected production will suffice if a farmer had a crop failure or some other unexpected problem.

**Farm classes.** To further define the blurring distinction of just what constitutes a farm—and the different kinds of farms—the overall definition is now divided into four classes:

(1) *A primary farm* is any farm where the operator spends at least half of his worktime on the farm, or any farm operated by a corporation or multi-establishment firm which receives at least one-half of its gross business income from farming.

(2) *A part-time farm,* on the other hand, is one where the operator spends less than half of his worktime on the farm.

(3) *A business-associated farm*—a farm operated by a corporation or multi-establishment company that receives less than one-half of its gross business income from farming.

(4) *An abnormal farm* refers to those farms operated by institutions such as hospitals or schools, or by Indian reservations or as experimental or research farms.

**New sales groups.** Another change is the addition of two more classes for dividing farms by value of sales, bringing the total to nine. Previously, all farms with annual sales of over $100,000 were lumped into one category. Now, with the greater number of these farms, we have three classes

in the $100,000-and-up group: $100,000-$249,999; $250,000-$499,999 and $500,000 and over.

Other important farm classification such as form of legal organization (proprietor, partnership, or corporation), types of land tenure, (full owner, part owner, or tenant), and age and race of operator will continue to be used.

**Why change?** So why is the definition of a farm being changed once again?

For one thing, with the recent spurt of inflation, very little "farming" would be involved to sell $50 or even $250 worth of agricultural goods. With a backyard garden plot and a roadside stand, a "farmer" could easily pull in $50, and with a little more effort, $250 or more.

For another, the farming industry has been undergoing dynamic changes in the past 20 years. In addition to technological revolutions in the farm process itself, the business end of farming has also been changing.

These changes, in turn, have affected the usefulness of some of the often-quoted farm statistics issued by USDA and Census. For example, income per farm includes all farms, whether a family operation that is the sole livelihood for the family, a farm that is only minor or supplemental income to the family, or farms operated by large corporations.

**Farm income statistics.** In the 1969 census, 22 percent of the farms sold less than $1,000 worth of farm production. And altogether they accounted for less than 0.5 percent of all farm product sales. However, these farms were included when income per farm was figured.

The new definition will drop out such farms with very little farm income. As a result, the income-per-farm statistic will be higher than when the smaller "farms" were included and will more nearly show the farm income earned by those who depend on farming for a living.

The new definition will also improve estimates of farm income through the new major classes of farms. The new "primary farm" and "business-associated farm" classes will help ERS economists know more about who is receiving farm income.

**Other impacts.** The business-associated class will also help provide more information on farming activities of large corporations that diversify or integrate into agriculture. And there will be more meaningful information on part-time farms, which are a very important part of agriculture and rural communities. The old definition of part-time farms arbitrarily limited this category to farms that sold less than $2,500 of farm goods.

The new farm definition will result in fewer recognized farms, which in 1969 numbered 2.7 million. A rough estimate is that the 1974 Census will show 16-20 percent fewer farms than it would have under the old definition.

Some regions of the country will be affected more than others by the change. The Southwest, Appalachia, the Delta States, and Alaska will show the biggest decline in farm numbers.

The States likely to be most affected (other than Alaska): West Virginia, Tennessee, South Carolina, Alabama, Florida, and Louisiana. According to the 1969 census, over 30 percent of the farms in these States sold less than $1,000 a year.

**[Based on special material from Gaylord Worden, Office of the Administrator.]**

## *Changing With the Times*

The Government has been in the business of counting farms since 1850, although what was considered a farm in the earlier censuses may or may not be considered one today.

For the first two agricultural censuses, taken in 1850 and 1860, the definition was simple. A farm was any place producing $100 or more of farm goods in a year.

However, in 1870, the following instructions were issued to census takers: "Mere cabbage and potato patches, family vegetable gardens, or ornamental lawns, not constituting a portion of a farm for general agricultural purposes, will be excluded. No farm will be reported of less than 3 acres, unless $500 worth of produce has actually been sold off from it during the year."

On the other hand, any place over 3 acres engaged in agricultural activity—regardless of sales or production—was listed as a farm.

By 1900, the unrealistic $500-sales base for small farms was abandoned. Instead, the qualifier was that agricultural activities take the "entire time" of one person.

For the 1910 and 1920 censuses, small operations that didn't meet the labor requirement but produced $250 or more in a year were also considered farms. By 1925, farms could no longer qualify under the labor requirement, but rather had to meet the standard for production value.

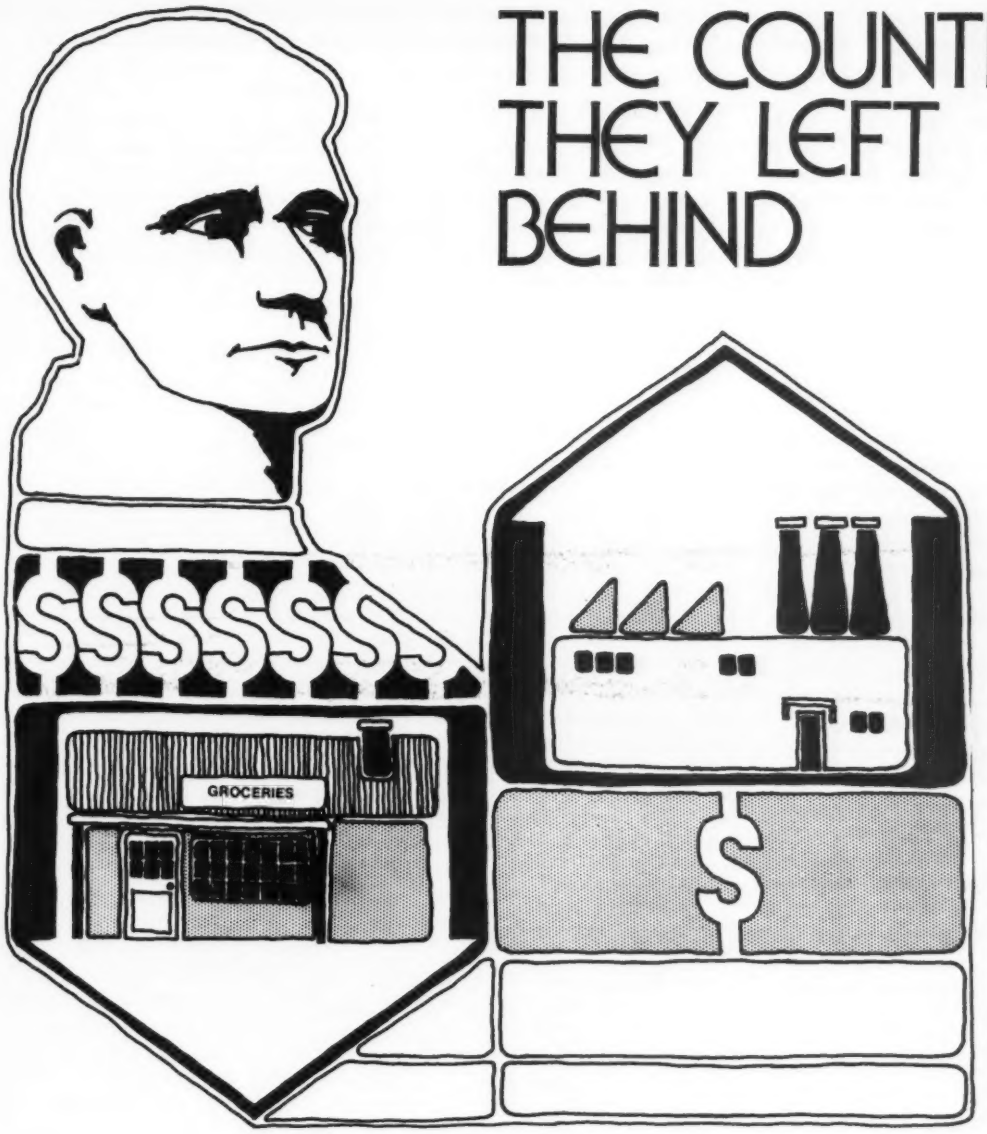
No more definition changes were made until 1945, when a larger farm—a total of 3 or more acres—had to produce at least $150 worth if it didn't have 3 or more acres of cropland and pasture. By 1950, the "if" clause was dropped.

Also in 1950, the $250-production requirement for small farms—less than 3 acres—was reduced to $150.

Major revisions were made in the farm definition for the 1959 census. The acreage cutoff was raised from 3 acres to 10. The larger farms were required to sell only $50, and the smaller ones, $250.

Although the farm definition didn't change again until recently, the census-taking method did. Since 1969, the census has been conducted by mail rather than personal visits by enumerators.

# THE COUNTIES THEY LEFT BEHIND




For a generation before 1970, hundreds of American counties had population losses, year after year.

Although these were the years of the "baby boom" when the United States was growing rapidly, it turned out to be a bust for many rural counties.

People by the millions—especially the young—left the countryside and went to town. Whatever their preferences, they felt they had little choice but to leave, as the technological revolution in farming and mining shrank the number of jobs available in their home counties.

In many communities, the typical young adult was the one who eventually left, and not the one who stayed. The high birth rate was outweighed by the even higher rate of departures.

Yet, at the same time, many counties were bucking this trend. Hundreds of them were growing in population, even though they were nonmetropolitan. Some grew rapidly, while others simply retained enough to avoid decline.

Although the general causes of population change among rural and small town counties have been reasonably well known, little effort had been made until recently to look systematically at the consequences of growth and decline.

**ERS Study.** So, in a new ERS study, nonmetropolitan counties that grew and declined in population were compared to determine how they differ in the characteristics of their people, and in general indicators of social and economic well-being.

- Families in declining counties were generally poorer, earning a median income of $6,546, compared with a median income of $8,027 for families in growing counties, according to 1970 census figures.
- More than a fourth of the families in declining counties were impoverished.
- Proportionally fewer working-age adults and more elderly people live in declining counties. The median age of people in growing counties was 27 years, compared with 29 years in declining counties.
- People in expanding counties generally achieve a higher level of education.
- The proportion employed in high status white collar occupations is greater in expanding counties.
- The proportion of women participating in the labor force is higher in growing counties.

**Minority Race.** Minority race citizens achieve a higher standard of living in growing counties, especially in income and education.

- The dependence on low wage and low skill extractive industries, such as agriculture or mining, is much lower in growing counties.

To measure the effects of growth and decline, the ERS study divided the nonmetropolitan counties into four categories:

Growing counties with net inmigration. (More people moved into the county than moved out.)

Growing counties with net outmigration. (More people left than moved in, but births overcame the loss to produce a net growth.)

Counties that lost less than a tenth of their residents.

Counties that declined a tenth or more.

**Improvement pattern.** Results show a consistent pattern of improvement in each comparison, going from the heavily declining counties to those with the most growth.

An examination of income levels provided a dramatic example of such differences. Using 1970 census data, the study showed that families in growing counties with net inmigration earned a median income of $8,331. Moving down the scale, family income in counties that declined a tenth or more was only $5,741.

The contrast is even more stark when a racial breakdown is made. Income levels among racial minority families ranged from $4,783 in rapidly growing counties to only $2,916 in rapidly declining counties.

**Poverty Level.** The percentage of families with incomes below the poverty level fell into similar patterns. More than two-thirds of minority families in counties that declined a tenth or more were impoverished.

This compares with 40 percent of minority race families in rapidly growing counties. For whites, the percentages of families in poverty ranged from 14 percent in growing counties with inmigration to 25 percent in rapidly declining counties.

Family income is affected by many factors, including age composition of the population, educational attainment, labor force participation of women, and the industry mix of employment. All of these factors favor growing counties.

**The Aged.** Elderly people head proportionally more families in declining counties. The aged are more dependent on social security and welfare as sources of income than are younger people. Thus, family income tends to be lower.

Years of schooling completed ranged from 12 years in growing counties with inmigration, to only 9½ years in counties that declined a tenth or more. For racial minorities, education was about 9 years in rapidly growing counties and about 7 years in counties with high rates of decline.

The labor force participation of women in declining counties is much lower, thus women do not contribute as much to the total family income as they do in growing counties, which have proportionally more women employed.

**Low wage employment.** Declining counties are characterized by higher than average employment in low wage and low skill extractive indus-

## GROWING AND DECLINING COUNTIES: ECONOMIC AND SOCIAL DIFFERENCES

| Item and level of urbanization | Total | Growing | | | Declining | | |
|---|---|---|---|---|---|---|---|
| | | Total | Net in-migration | Net out-migration | Total | Less than 10% | 10% or More |
| **All nonmetropolitan** | | | | | | | |
| Median age | 27.7 | 27.1 | 27.2 | 27.1 | 29.0 | 29.1 | 28.6 |
| Dependency ratio | 84.6 | 81.4 | 77.6 | 84.7 | 91.4 | 89.1 | 98.7 |
| Sex ratio | 96.6 | 97.8 | 99.3 | 96.5 | 94.2 | 94.2 | 94.1 |
| Median family income | $7,547 | $8,027 | $8,331 | $7,772 | $6,546 | $6,794 | $5,741 |
| Percent below poverty level | 21.7 | 18.1 | 15.8 | 20.0 | 28.9 | 26.7 | 35.7 |
| **20,000 or more urban** | | | | | | | |
| Median age | 26.7 | 26.3 | 26.0 | 26.7 | 28.4 | 28.9 | 25.6 |
| Dependency ratio | 79.9 | 78.4 | 74.6 | 82.2 | 86.3 | 84.7 | 97.7 |
| Sex ratio | 97.5 | 98.4 | 100.0 | 96.9 | 93.9 | 94.0 | 93.5 |
| Median family income | $8,400 | $8,621 | $8,794 | $8,455 | $7,576 | $7,677 | $6,802 |
| Percent below poverty level | 16.5 | 15.1 | 14.0 | 16.1 | 22.1 | 21.0 | 29.8 |
| **Less than 20,000 urban** | | | | | | | |
| Median age | 28.8 | 28.4 | 29.4 | 27.7 | 29.2 | 29.2 | 29.2 |
| Dependency ratio | 89.4 | 85.9 | 83.2 | 88.0 | 93.8 | 91.7 | 98.9 |
| Sex ratio | 95.7 | 96.9 | 97.9 | 96.1 | 94.3 | 94.3 | 94.2 |
| Median family income | $6,699 | $7,195 | $7,555 | $6,941 | $6,068 | $6,287 | $5,543 |
| Percent below poverty level | 26.7 | 22.3 | 18.8 | 24.7 | 31.9 | 29.8 | 36.9 |

tries. This factor is underscored by manufacturing employment in growing and declining counties: about 15 percent of the labor force in counties that declined by a tenth or more worked in manufacturing jobs, compared to a fourth of the labor force in counties that grew rapidly.

The community's aggregate income is further diluted by a higher proportionate number of dependents who must be supported by the smaller income.

**Dependency Ratio.** Declining counties have a higher dependency ratio than their counterparts in growing areas. This dependency ratio is considerably higher for minority race citizens, who experience the lowest income of all.

The dependency ratio is a means of approximating the number of dependents per wage earner.

These differences indicate a bleak social and economic outlook for declining nonmetropolitan counties, especially those that declined by a tenth or more. Since many of these counties have continuously lost population for decades, the implication is that decline begets decline, feeding the factors responsible for the downward spiral.

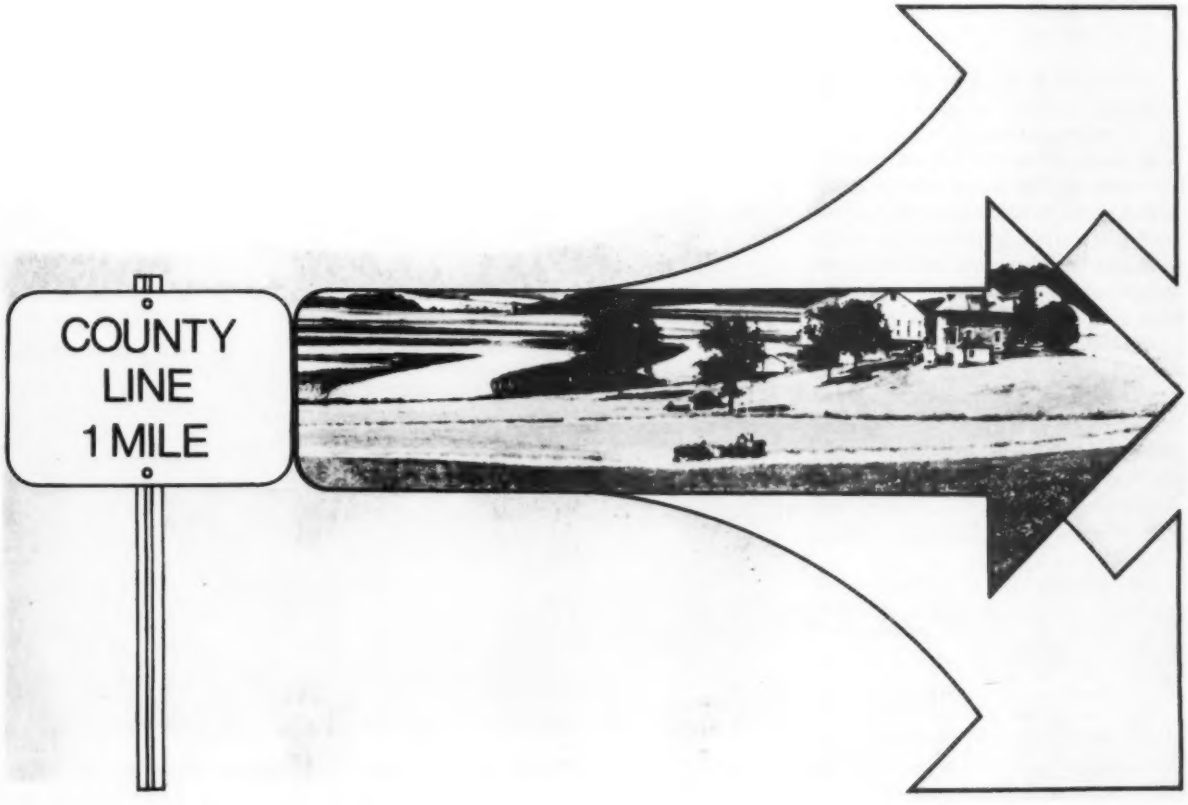
However, recent studies show that many counties that lost population during the 1960's have now begun to grow, thus leading the population turnaround for nonmetropolitan counties.

**Growth surge.** The sudden growth between 1970 and 1973 in counties that experienced the turnaround was so strong that it offset the losses of declining counties to produce a net 4-percent growth for all nonmetropolitan counties. This compares with only a 3-percent growth in metropolitan counties.

This demonstrates that in some instances population decline may indicate a period of adjustment in the manpower needs of agriculture, forestry, mining, and other extractive industries. Thus, the recent growth surge in nonmetropolitan counties may mean that the excess of manpower in extractive industries has declined through outmigration to the point where the supply of labor equals the demand. Coupled with this, an inmigration is occurring that is related to such factors as:

*Growth in manufacturing, services, and other nonextractive industries.* With plant relocation or expansion in small towns and a growth in service industries, dependence on such jobs as farmwork or forestry is waning. Some of the excess labor force from extractive industries can now be placed on other jobs.

*Development of recreation and retirement activity in nonmetropolitan areas.* Many rural areas are profiting from the natural advantage of a



*A small, depressed Appalachian town is nestled in the Kentucky hills. After years of decline, some such towns are finding new life.*

scenic location and a good climate by catering to people seeking recreation or a retirement home.

*Growth of 4-year State colleges and universities in nonmetropolitan areas.* A college provides not only an influx of people who require specialized services, but adds leadership and amenities to a community that make it more attractive for other purposes.

**Price of growth.** Growth, of course, doesn't come without a price. With the unexpected population surges, many newly growing counties face pressing needs for housing and for water, sewers, and other services associated with housing. Educational and recreational services may also be needed.

Counties that are growing through an influx of retired people may find that health, social, and recreational services must be tailored for such citizens.

Yet, the price of continuing decline is much greater. Services of the elderly must also be considered, since declining counties have a proportionally larger number of elderly people.

Moreover, disadvantaged counties may require assistance in the form of education and retraining programs to ensure the provision of high-quality services, or as payments to cover the capital loss suffered by businesses.

**Brighter Future.** Overall, the future is much brighter for the graduating class in a small town that lies somewhere in a newly growing county than for the graduating class in a small town in a declining county.

For them, the opportunities are at home: in manufacturing plants, in service industries, or at the college, with its new buildings and expanded scope.

**Dim options.** Young people in the declining counties face a more uncertain future. They can pack their bags and seek opportunities in other areas; they can commute long distances to jobs in other counties; or they can stay and hope that their community will someday "turn around" and end the downward spiral.

[Based on the manuscript "The Socioeconomic Characteristics of Growing and Declining Nonmetropolitan Counties, 1970," by David L. Brown, Economic Development Division; and on the paper "Recent Population Trends and the Provision of Services in Nonmetropolitan Communities," presented to the Annual Forum of the American County Life Association, Starkville, Miss., July 8, 1975.]

*The growth turnaround of the mid-1960s is evident in this West Virginia county where this industrial complex is located.*

# Coastal Bermudagrass May Feed Southern Poultry

Southern poultry producers may have a relatively untapped source of feed ingredient growing in fields next to their operations.

Coastal bermudagrass, a major food source for the southern cattle industry, may be substituted for some of the corn gluten and dehydrated alfalfa which are now being used.

A joint ERS-ARS study that examined the economic feasibility of using dehydrated Coastal bermudagrass in feed mixtures concluded that, in 1973, 157,358 tons of dehydrated Coastal could have economically been used.

Projecting feed requirements to 1985, the study suggests that 255,-305 tons may be used to partially meet the rising needs of the South's fast-growing poultry industry.

Grown mostly as pasture or hay, Coastal bermudagrass occupies some 12 million acres in that region, and it has assumed the status of one of the South's most valuable crops.

The potential for poultry use could increase the efficiency of its use since, when used for grazing or harvested as hay, a substantial part of its feeding value is lost due to trampling or deterioration.

If the bermudagrass is cut at the proper state and immediately dehydrated, a quality feed product can be obtained that contains 15 percent or more of high quality protein, plus high levels of xanthophyll and vitamin A.

In this dehydrated form, the Coastal bermudagrass produces 50 percent more beef per acre than in its grazing state.

As a substitute for dehydrated alfalfa or corn gluten meal, the Coastal bermudagrass could possibly reduce costs for southern poultry operators, since dehydrated alfalfa and corn gluten must be shipped into the region, entailing transportation costs.

In line with production, feed requirements are also large in the South. By 1985, more than half of the chicken feed and a fourth of the turkey feed used in the U.S. will be consumed in those States.

The ability to economically substitute dehydrated Coastal bermudagrass for corn and alfalfa products varies among poultry classes.

Coastal bermudagrass's xanthophyll content is a key factor in determining value as broiler and layer feed. Xanthophyll provides yellow pigmentation for skin and egg yolks. While the pigmentation has no apparent effect on the health of the fowl, taste, or food value, poultry producers contend that American consumers want chickens with yellow skin, and eggs with yellow yolks.

The researchers found that corn and gluten meal were more economical as pigmentation agents during the first three-quarters of the year. But, in the fourth quarter, Coastal bermudagrass became competitive as the xanthopyhll content of corn and corn gluten meal was at its lowest level. At that stage, Coastal bermudagrass can comprise 1 percent of starter diet, and 3 percent of finisher diet for broilers.

Coastal bermudagrass is seemingly more suited to layer diets. Because of the layer's lower requirements for energy and amino acids and greater tolerance of fiber, Coastal can comprise 2 to 4 percent of the layer ration.

Since pigmentation is not required in pullet or turkey rations, Coastal is not competitive with other feed ingredients at current prices.

[Based on the manuscript, "Markets for Dehydrated Coastal Bermudagrass in Poultry Feeding," by Y. Davies and D. Burdick of Agricultural Research Service, and W. K. Trotter of ERS, all assigned to the Russell Agricultural Center, Athens, Ga.]

# Almost All U.S. Cropland Is Now in Use

American farmers are using almost all readily available cropland now, thus ending two decades of "underutilization" through land retirement programs.

An ERS study has found that in 1974, 93 percent of total cropland was used for crops. It was the highest percentage of cropland used since 1949, the peak year when farmers used 96 percent of all cropland.

The study reported that while sizable acreages of cropland can be provided from other land uses, considerable time and expense is needed to develop that land.

The ERS study cited the 1967 National Inventory of Soil and Water Conservation Needs that identified almost 266 million acres of such land that is now in pasture, forest and other uses.

Now, some 361 million acres of cropland are being farmed.

Much of the easily converted potential cropland is in the Plains States and the plains portion of the Mountain States. Other sizable portions of potential cropland are in the Delta, Southeast, and Appalachia. The main problem is that much of the potential acreage must either be reclaimed from forest or swamp, or the land is located in subhumid areas that are sometimes devastated by drought or erosion.

Other potentially usable cropland in the Northeast and Appalachian States is dispersed in small, irregular, scattered tracts that are not conducive to modern farming.

Still other land, in the Corn Belt and Lake States, can be converted from pasture or by drainage.

Another 130 million acres scattered across the country could be used only for hay, or tilled intermittently.

[Based on manuscript Cropland for Today and Tomorrow, by H. Thomas Frey and Robert C. Otte, Natural Resource Economics Division.]

In the past 25 years, soybeans have risen from obscurity to prominence. World soybean production has more than doubled, topping 50 million metric tons in 1974.

But all is not rosy. Prices received by U.S. farmers plummeted by over $3 a bushel from October 1974 to June 1975, although in the past few months prices have risen in sympathy with other commodity markets. And U.S. bean exports are estimated at only 400 million bushels this year, down about a fourth from 1974 and the least in 6 years.

Economic slowdowns, inflation, and slim profits in the livestock and poultry industries have sharply curtailed domestic demand for soybean oil and meal. Also, other commodities —particularly Peruvian fishmeal, African peanuts, Philippine copra, and Malaysian palm oil—are emerging as stiff competitors of our soybeans. What's more, foreign soybean production is gearing up.

Government policies, here and elsewhere, have had a lot to do with these developments.

**The Big Three.** Policies of the big three soybean producers—the U.S., Brazil, and the People's Republic of China (PRC)—figure prominently in the boost in soybean production. These countries produced 92 percent of the world's soybeans in 1974, with the U.S. accounting for almost two-thirds of the total. Since nearly all of the soybeans produced in the PRC are consumed within the country, the U.S. and Brazil are left as the major world suppliers.

A big factor in boosting our own soybean production has been government support of research and education. For example, in the early 1970's, there were 32 State agricultural experiment stations, 8 USDA agencies, and 9 other cooperating institutions researching the bean. And they chalked up about 205 scientific man-years doing it.

**CCC Regulations.** Another thing going for the soybean in the U.S. has been price supports through nonrecourse loans from the Commodity Credit Corporation (CCC). Under those loans, a farmer could choose to pay off the loan with interest if prices rose above the loan base, or if the market rate was below that, he could turn over his soybeans to the CCC for full payment of the loan. However, with 1975 soybean prices much above the loan level, the loan program was cut off for the 1975 crop to reduce Government involvement in farm programs. But loans could be reinstated in the future since price supports are authorized by law.

Also, Government programs for many years were indirectly working in the soybean's favor through acreage restrictions that were being imposed on corn and cotton. Since most of the U.S. soybeans are grown in major corn and cotton producing areas, restricting these two crops paved the way for soybean expansion. In fact, from 1953-74 soybean acreage grew every year except in 1959, 1964, and 1974—the only years since 1953 when there were no limits on corn planting.

**U.S. trade.** For the most part, the U.S. has encouraged soybean exports.

Since 1954, when the Food for Peace Program (PL 480) was started, the U.S. has exported the equivalent of 2 to 10 percent of its soybeans as oil to developing countries. However, during part of the summer of 1973, the U.S. put a ceiling on soybean exports to prevent any food shortages at home.

The U.S. imports few soybeans, possibly because of stiff import duties. Duties on the beans are 1 or 2 cents a pound, depending on whether they come from "most favored nations" or other countries. Duties on soybean oil are 22½ percent and 45 percent ad valorem; on cake and meal, 0.3 cent a pound.

**Brazil's production upsurge.** The U.S.'s rising competitor—Brazil—has spurred soybean production through several policies similar to ours.

As in the U.S., a good portion of the soybean expansion is tied to another crop—in Brazil's case, wheat. Since the late 1960's Brazil has been pushing wheat production, and indirectly, soybean production. Since soybeans are a relatively short-season summer crop, they are a natural to pair with winter wheat.

Brazil also has extensive programs of education and research on the soybean. The most recent project is aimed at reducing transportation costs of farm products—especially soybeans—from the farms to ports for export.

Price supports are also used in Brazil, although recent prices have been above support levels. In addition, the Bank of Brazil's Foreign Trade Division buys soybeans to insure that exports don't result in domestic needs falling short.

**Changeable policies.** Although many of Brazil's policies affecting soybeans are similar to those in the U.S., its policies are quite changeable. Frequently, Brazil changes support prices, export restrictions, tariffs, and taxes in a continuing effort to balance production with domestic demand and need for foreign exchange. Although it seems that the result would be to create uncertainty and caution toward expansion, Brazil's soybean industry continues to thrive nevertheless.

In fact, soybean acreage has expanded rapidly in the past few years, ranking Brazil second only to the U.S. in soybean production and exports. In 1974, Brazil grew 7 million metric tons of soybeans and exported 2.8 million tons. Its crop this year may total about 9.5 million.

Agricultural policies in other countries have also affected production and trade of soybeans. Japan, the European Community (EC), Canada, and Australia are the key countries.

**Japanese crossroads.** Japan has long been at an agricultural crossroads—whether to step up costly food production or concentrate efforts in its thriving industrial economy. However, with the threat of world food shortages, Japan has decided to bolster its declining agriculture.

And soybeans figure in the expansion scheme, especially since they are used directly for food in Japan. In 1973, Japan's soybean production was a mere 100,000 tons, only a fifth of 1955's output. With increased support prices in 1974, however, plantings increased for only the second time in 20 years.

Japan's long range plans call for more than tripling soybean production by 1985. However, with the expected increase in demand, even this surge in production would only meet about 60 percent of the demand for direct food use.

**EC competition.** Europe produces very few soybeans, but produces more than a million tons annually of oilseeds including rapeseed and sunflowerseed—direct competitors of soybean meal and oil. Also, although nearly all imports enter the EC duty free, oilseed crushers receive a subsidy for purchasing domestic sunflowerseed and rapeseed. Thus, their own oilseeds have the edge over foreign soybeans.

An EC Common Agricultural Policy for soybeans went into effect last November. The policy doesn't contain any import restrictions, so soybean imports remain duty free and unlimited. However, the policy provides for a guaranteed domestic producer price which is set annually by Community authorities.

**Canadian rapeseed.** Canada normally exercises no direct controls over production and marketing of soybeans, nor does it have import duties or restrictions on soybeans. However, it is pushing domestic rapeseed as a substitute for imported soybeans by pumping funds into research.

Although a minor soybean producer, Australia is coming to the fore. The 1973-74 output totaled about 62,500 metric tons, a 67-percent jump from the previous year. And with increased plantings this season, Australia should become a net exporter of soybeans.

**[Based on "Government Policies Affecting the Production, Marketing, and Prices of Soybeans," speech by James Vermeer, Commodity Economics Division, at the First World Soybean Research Conference at the University of Illinois, Urbana, Ill., August 4, 1975.]**

### *Salad Dressup*

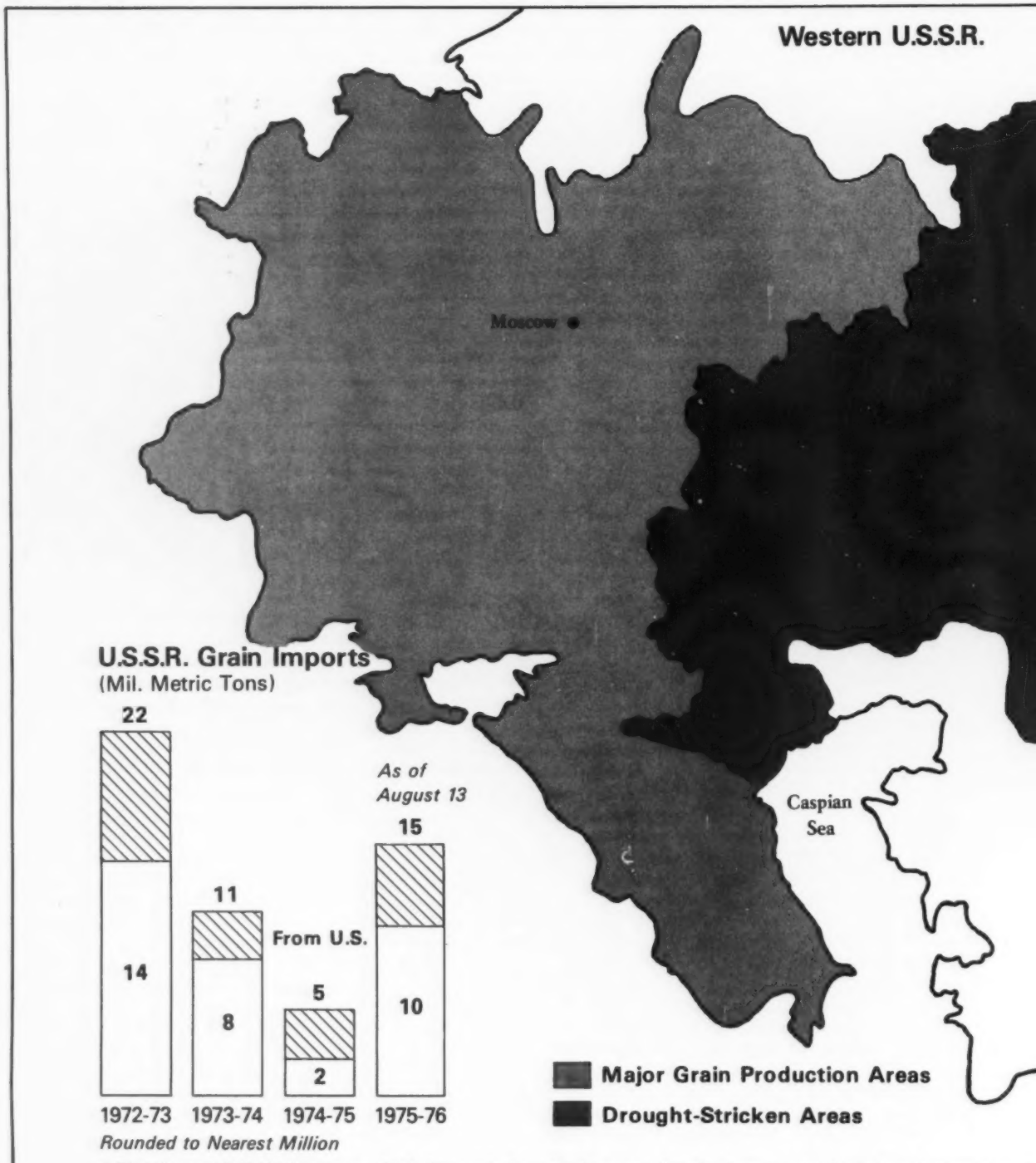
Soybeans are more than a health food, livestock fattener, or meat extender—soybeans (in oil form) may well provide the base for your favorite salad dressing. Dubious? Well, look on the back label of your dressing, and chances are 3 in 4 that you'll see soybean oil as a major ingredient.

In fact, salad and cooking oils are now the biggest users of soybean oil in the U.S. Shortening and margarine are next in line.

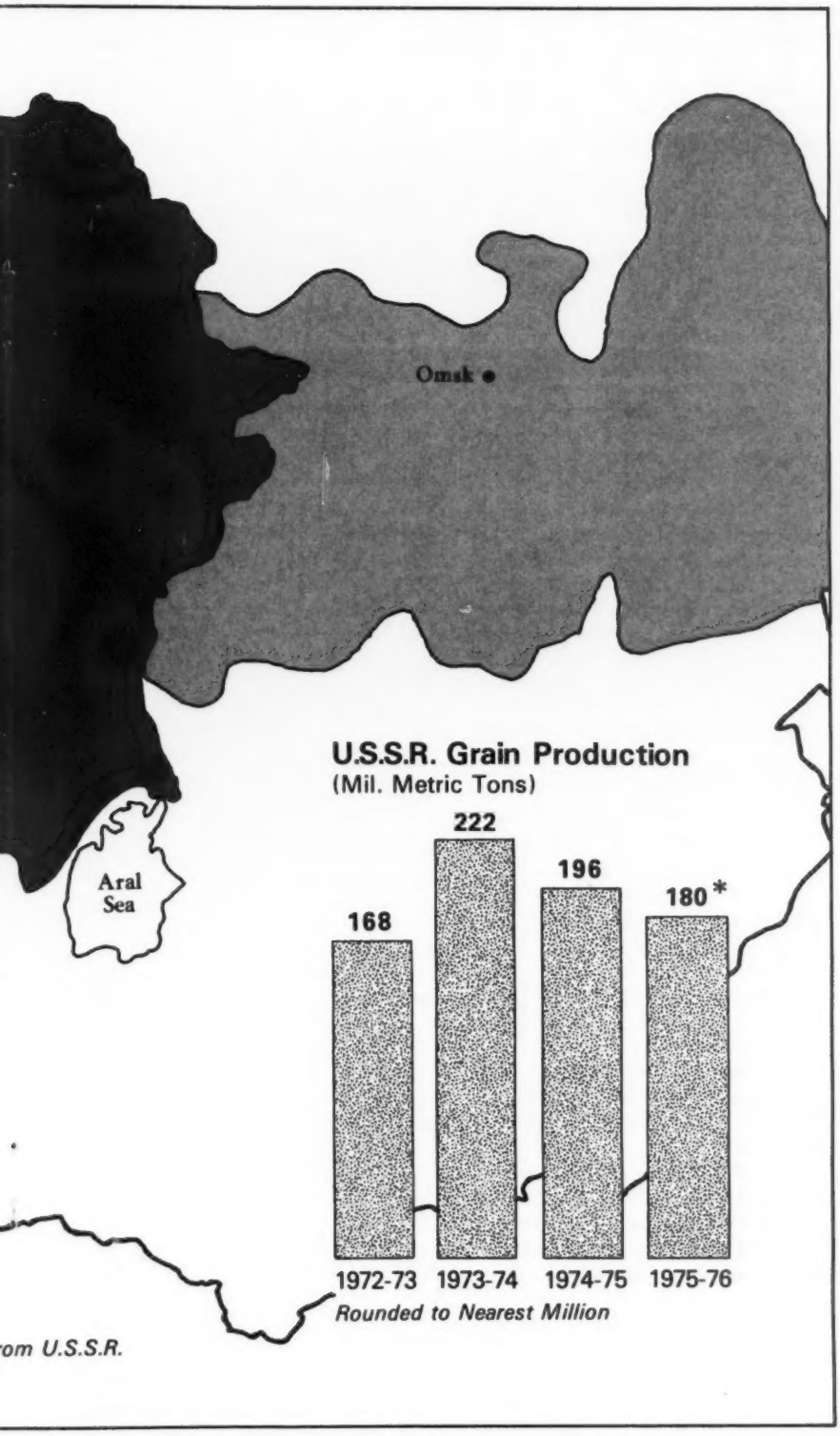
Soybean's share of oils in the salad and cooking oil market zoomed from 40 percent in 1958 to 75 percent last year. Cottonseed oil, an equal competitor in 1958, was reduced to only a slight share of the market—13 percent.

Soybean oil has also been making significant inroads—though less dramatic—into shortening and margarine production. Again, cottonseed oil has been the loser.

However, despite its success in shortening and margarine production, soybean oil is not without competition. The less expensive imported palm oil has made sharp gains in the shortening area. And corn and safflower oils are increasingly being used in margarine—especially the new "soft" margarines.




** Fiscal year 1975-76 figures are U.S. forecasted projections as of early August, not based on information fr*




# WHY THE SOVIETS NEED GRAIN

***Had it not been for a streak of dry weather, the Soviets would now be boasting a near-record harvest of grains for 1975. Instead, they have been forced to enter the world market in a big way, with 1974-75 grain imports expected to surpass the 1972-73 record. A hefty share will come from the U.S. Here, an ERS specialist in Soviet affairs reviews the developments leading up to recent purchases.***

**FALL, WINTER 1974-75.** All systems were go for a bumper harvest of winter grains in the U.S.S.R. Farmers seeded almost 34 million hectares (about 84 million acres), just about a million hectares shy of the official goal. Unusually mild weather kept winterkill to a minimum. Everything pointed to a successful season.

In February, the Soviets announced in one of their agricultural journals an expected grain output of almost 216 million tons, up about a tenth from 1974 and the second highest on record.

U.S. crop forecasters, meanwhile, received an early omen about the vital spring grain crops, which normally account for over two-thirds of total grain production. Dry winter weather plagued some important planting areas, leaving a low soil-moisture base before seeding.

**APRIL.** The Russians were going full speed ahead with their spring seeding in the European part of the country, planting more than they had in several years.

Dry weather in the Volga and southern Ural regions (most of the drought-stricken areas shown on map) continued to warn forecasters

that the Soviet grain crop might fall short of the target.

Around the first of the month, USDA published a projection of the Soviet crop of 210 million tons. Utilization was estimated to be the same. Since the Soviets export some grain, about 5 million tons yearly, mainly to Eastern Europe, this suggested right from the beginning that they might have to import grain to offset their exports.

**MAY.** Drought worsened in the Volga and Ural regions and parts of nearby Kazakhstan. It became increasingly evident that spring grain crops in those areas were not going to do well.

Winter grain crops, on the other hand, were doing okay. There was a period of fairly dry weather in the European part of the country in midmonth, but by late May the rains came. This helped the winter crops, which are grown primarily in European U.S.S.R.

**JUNE.** Because of the relatively mild winter and early spring, harvesting of winter grain crops began earlier than usual. By mid-June harvesting was already well under way, and it looked as though the Soviets had a good crop. Output was estimated at about 60 million tons, down only a little from last year's 62 million.

Despite a successful winter grain crop, USDA experts were convinced that the Soviets would not make their goal for all grains. Major spring grain areas were still sieged by drought. Middle Volga, for example, got less than half the normal amount of rainfall in April, May, and June.

**JUNE 9.** USDA reduced its earlier projection of 210 million tons of Soviet grain to 200 million, and suggested a possible import level of 10 million.

According to ERS, the reduction was based primarily on the hot, dry weather in the Volga and southern Ural regions, which had continued for at least a month after seeding.

**JUNE 27.** Dry weather continued in the Soviet Union in June, a USDA press release said.

**JULY 9.** The drought stretched into July, resulting in the Department's reduction of the estimate further to 195 million tons. This would approximately equal the 1974 crop, but fall nearly 21 million tons short of the Soviets' 1975 goal. Soviet grain imports could be as much as 15 million tons. This announcement coincided with newspaper accounts of rumored Soviet grain purchases.

**JULY 16-23.** In just 8 days the Soviets purchased about 10 million tons of grain from private U.S. firms, including 4.2 million tons of wheat and 5.6 million tons of feed grains. The Soviets also bought 3 million tons of grain from Canada, and 750,000 tons from Australia.

**JULY 24.** USDA announced that in view of the large Soviet grain import requirement, it had asked export firms to advise the Department before beginning negotiations of large sales of grain.

Also, the Department once again reduced the size of the forecasted Soviet grain crop—this time to 185 million tons. Hot, dry weather had now spread over northern Kazakhstan and into parts of West Siberia.

A total grain output of 185 million tons would compare with 1974 production of 195 million tons, and the record 222.5 million the year before.

The Department estimated that with such a crop, the Soviets would need to import about 20 million tons to prevent cutting back on their livestock program.

**JULY 31.** During the last 10 days of the month, the drought was interrupted by rains in nearly all of the European part of the country, as well as in much of the Volga region and northern Kazakhstan. But the unusually mild winter and early spring had pushed production ahead of schedule as far east as the Urals, so the much-needed rains at this point did little good. The crops were already too far gone.

Rains benefited the crops in northern Kazakhstan and Siberia, but continued to bypass the Ural region, and ERS predicted that nothing could save the crops there that were approaching harvest.

**AUGUST 11.** USDA lowered its previous estimate of the total Soviet grain crop to 180 million tons. Probable Soviet imports from all sources were projected at 25 million tons. Continuing drought conditions, primarily in the Ural regions, were responsible for the reduction.

Meanwhile Secretary of Agriculture Earl Butz had put a hold on further U.S. grain sales to the Soviet Union until the size of the U.S. crop was known with greater certainty.

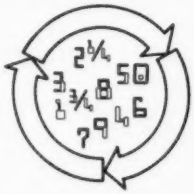
In another development, USDA representatives who returned from inspecting nearly a third of the Soviet's spring wheat areas, largely east of the worst drought-stricken regions, announced that although dry weather had cut yield prospects in most of the areas they visited, "no disaster conditions were observed."

**AUGUST 13.** Canada sold an additional 800,000 tons of grain to the U.S.S.R., increasing the Soviet's total imports to almost 15 million.

**AUGUST 29.** USDA reduced its previous estimate of the total Soviet grain crop to 175 million tons (not indicated on chart). The predicted import level of 25 million tons remained the same.

As of August 13, the Soviets had purchased roughly 15 million tons of grain from around the world, 10 million from the U.S. If U.S. harvests permit, U.S.S.R. purchases of our grains likely will resume.

[Based on special material by David M. Schoonover, Foreign Demand and Competition Division.]



# DATA COLLECTION SOVIET STYLE

Getting forecasts of Soviet grain production is next to getting blood from a turnip.

Soviet officials aren't much interested in forecasting crop output during the growing season. Their overriding concern is how to meet the production targets decreed by Moscow.

As for the individual Soviet farmer, crop prospects in the rest of the country have little impact on his operation. The state tells him what and how much to sell, and fixes the price beforehand. Most of the decisions have already been made for him.

But don't think that the Soviets are in the Dark Ages when it comes to gathering agricultural statistics. Far from it. Compared with the U.S. system, the Soviet setup is more structured and complex. Also, much of the Russian data are more current than ours.

**Key difference.** One of the main differences between our system and theirs is who uses the figures. This gets back to the reason the Soviets don't see the need for making agricultural forecasts in the first place.

In the U.S., primary users of data are the farmers themselves plus agribusinessmen and others who rely on official statistics to help make decisions guiding their enterprises. In the U.S.S.R., government officials are the big clients. They need the information to develop agricultural plans and to see that they're carried out.

The U.S. Government freely shares agricultural intelligence with anybody who wants it. Great care is taken to assure the reports are made available to all users at the same time. For the most part, information in the Soviet system flows to officials only. That's basically why USDA is hampered in following U.S.S.R. agriculture.

The contrasts between the two systems go deeper.

**More farms.** Consider first that we have more territory to cover—roughly 2.5 million farms, most of them small, family operations. The Soviet Union has fewer than 50,000 large, socialized farms.

For our purposes the best way of gathering the most accurate data for the least amount of money is through the sampling technique, including questionnaires mailed to selected farms, personal interviews, and yield surveys. Participation by farmers is voluntary.

The Soviets, on the other hand, do a complete enumeration of collective and state farms. Farms refusing to cooperate pay stiff penalties. Sampling is confined to household budget surveys that yield figures on per capita food consumption, and on production of private-plot crops and privately owned livestock which count less heavily in the countrywide picture.

**Forward look.** Both countries collect basic data on crops and livestock—crop area, yield, production, livestock numbers, livestock products, stocks, and marketings. But in addition, the U.S. system emphasizes farmers' crop planting and livestock breeding intentions and forecasts of preharvest yields.

The Soviet way—is it accurate? In theory, the data should be highly accurate, according to a USDA team who visited the U.S.S.R. in 1974 under the Agreement on Cooperation in the Field of Agriculture. The enumeration technique greatly reduces errors, and numbers are carefully checked.

**Errors creep in.** Nevertheless, the team reported, there are some errors and falsification of data. The USDA team said also that it could not make a good evaluation of data accuracy, since members were not shown much of the statistical system in operation. Most of the time on farms was spent in the offices of the chairman or director rather than in the bookkeeping offices.

Questions of accuracy aside, the Russians' data system doesn't come cheaply, probably costing more than the U.S. could justify. On Soviet farms alone, an estimated 250,000 people keep the books. Above the farm level another 10,000 people collect and process the information.

But you have to concede that the information reaches the top brass in short order.

**Data flow.** A good example is the weekly report filed by each farm's chief bookkeeper. It generally summarizes weekly progress as of Monday morning, such as plowing, seeding, harvesting, and production of most crops. Data from the farm are relayed by telephone or telegraph to the next administrative level, the rayon (county) offices, then to the oblast (state) offices, then to the Central Statistical Administration (CSA) of the 15 union republics, and finally to the CSA-U.S.S.R.

By Wednesday noon—just 2½ days after the process began—cumulative results for all the Soviet Union are available to interested persons in government and to news correspondents.

*(Continued on next page)*

**Limited distribution.** As mentioned earlier, not all the data are made public. There are three types: "statistical," which are collected openly by CSA and generally can be published at any administrative level without restriction; "operational," for use only by Soviet officials and not for publication; and "bookkeeping," mainly concerning farm finances and for use by the Ministry of Finance.

In addition to weekly reports, some are required monthly for certain operations, particularly those concerning livestock products.

Oddly, figures on grain production are not compiled until around November 1. Soviet statistical officials say the leadership in Moscow isn't interested in production data during the harvesting season, only in the area of grain cut down into windrows, and that picked up and threshed.

The most comprehensive annual report is submitted by each collective and state farm and contains data on all aspects of the farm and operations during the year, from which production costs, productivity, efficiency, and profitability are calculated.

**Information gap.** All this benefits U.S. analysts as they study Soviet agriculture. But as a leading producer and trader in farm products, the U.S. needs a better reading of current crop prospects in the U.S.S.R. to assess the outlook for world agriculture.

Perhaps Soviet leaders are beginning to appreciate the value of foresight. After the U.S.S.R. drought in 1972, they issued a special directive to collect crop prospect information. The Soviet hydrometeorological service and the Ministry of Agriculture have been doing some work on forecasting. Yet thus far no organization in the U.S.S.R. has been assigned the responsibility for making "official" forecasts of Soviet crop production.

[Based on manuscript, Collection of Agricultural Statistics in the Soviet Union, by Fletcher Pope, Jr., Foreign Demand and Competition Division.]

*At the mercy of seasons, crop failures, and their own lack of transferable skills, farmworkers have often faced unemployment.*

## Cost of UI to Agriculture

In this day of Social Security, retirement pensions, health coverage plans, and unemployment insurance (UI), everyone is pretty well covered against economic disaster . . . right? Wrong. Farmworkers are a case in point.

Ever since social legislation got a toehold in the 1930's, farmworkers have been excluded from most of the benefits. The recent recession and resulting rise in the Nation's unemployment rate have spotlighted one of these exclusions—unemployment insurance.

Farmworkers were originally denied unemployment coverage because their inclusion was, at that time, seen as a threat to the system's success. Reasons the lawmakers gave were: (1) Employment patterns in agriculture—large number of farms with few employees per farm—would make the program administratively unworkable; and (2) the seasonality of agricultural employment would result in large benefit payments which would undermine the solvency of the program.

Although farmworkers are temporarily covered under provisions of the Supplementary Unemployment Assistance Act of 1974, they have continued to be excluded from coverage under the regular unemployment assistance program. This exclusion is increasingly challenged on equity grounds. However, discussions on extending permanent unemployment insurance coverage to agriculture are still dominated by concerns over seasonal farm employment patterns and their effects on the costs of the program.

The cost question has been the focus of several studies in recent years. In a Delaware study, researchers defined the cost rate as the percentage of taxable wages that would be paid out to insured workers as unemployment benefits.

Using a standardized farm work force, they concluded that the cost of extending the program would range from a low of 2.81 percent of taxable wages to a high of 5.04 percent, based on 1971 wages and benefits. The median cost rate, for 48 States, was 3.7 percent. The wide range in cost is due to the fact that unemployment statutes vary considerably from State to State.

For example, the statutes affect the percentage of farmworkers who

could qualify for unemployment compensation if it were open to them. On the average, 84 percent of all farmworkers would qualify. The rate would range from 66 percent in Wisconsin to 87 percent in Maine, Iowa, and Delaware. In addition to Wisconsin, only four States would hold the qualifying rate to less than 80 percent: Idaho, Minnesota, Vermont, and Washington.

State laws also govern weekly payments and length of benefits. The average weekly payment to farmworkers would range from about $23 in West Virginia to $42 in New Jersey. The average payment would be $36. Length of benefits would vary from almost 9 weeks in Wisconsin to just under 12 weeks in New Hampshire, averaging a little over 10 weeks nationwide.

Based on the length and rates of payments, total unemployment compensation would average out to $362 per farmworker, ranging from $266 in West Virginia to $486 in New Jersey. In general, the higher the cost of living in a particular State, the higher would be the amount of compensation.

As expected, costs to the employer would be closely tied to employee benefits. West Virginia, with the lowest total benefits, would charge the employer the least—less than 3 percent of his payroll. Costs to the employer in Connecticut would top the Nation at just over 5 percent, followed closely by New Jersey.

Differences in costs and benefits could have a substantial impact on local economies if unemployment insurance were extended to farmworkers. For example, they could influence the costs and locations of agricultural production, the ratio of labor to farm inputs, and the relative costs of hired versus family labor. On the farmworkers' end, the cost differences would mean differences in unemployment benefits, which in turn could draw workers to areas with greater benefits.

[Based on article to appear in *Agricultural Finance Review*, Vol. 36, October 1975, "The Effects of Differences in State Unemployment Insurance Provisions on Benefit Payments to Agricultural Workers," by Joachim G. Elterich, University of Delaware, Newark, and Richard F. Bieker, Delaware State College, Dover.]

## Guidelines Set to Screen Farm Loans

Can creditors who consider applications for agricultural loans identify certain characteristics that may predict repayment problems?

According to a study by two researchers, a credit scoring model for analyzing Production Credit Association (PCA) loan applications in Central Illinois correctly identified the probable success of credit applicants for most initial applications studied.

The study found four key characteristics, one rather obvious, but the others perhaps surprising:

1. Total liabilities to total assets. The higher the ratio of liabilities to assets, the greater the likelihood of repayment problems.

2. Amount of note (original PCA loan) as a proportion of net cash farm income. Generally, the higher the ratio of the note to net farm income, the better the repayment record. This unexpected factor may result from the growth that the loan provides, thus, the greater the debt, the more the growth, and the easier it is to repay the loan.

3. Amount of credit life insurance. Problems increased with the amount of credit life insurance taken out by the applicant.

4. Number of acres owned. The number of problem loans went up with the size of acreage of the borrowers' farms.

[Based on the manuscript, Evaluation of Agricultural Loans with Discriminant Analysis: Application to Cash-Grain Farms, by Daniel J. Dunn and Thomas L. Frey, University of Illinois, to appear in Agricultural Finance Review.]

## New Tax Assessments Affect Farm Economics

Although death and taxes still remain certain, many farmers are finding that the latter fate is much easier to accept due to differential assessments.

Since Maryland established the first differential assessment law 19 years ago, 34 other States have followed suit to protect farmland, open space, and historic sites.

To the farmer, the law provides vital tax relief that lowers his production costs. To the legislators, it's a means to encourage sensible land use and controlled development.

The term differential assessment may be categorized into three general forms:

- Preferential assessment provides that farmland or open space land or an historic site is to be assessed at its value and its current use, ignoring alternate uses.
- Deferred tax provides that the assessor must maintain two value figures on each property: the current use value and the market value. Thus, if land use is changed, a penalty is assessed.
- Restrictive agreements is a large, broad category. Similar to deferred tax, such agreements are contracturally specified, with a local government agreeing to lower taxes in exchange for the landowner's commitment to continue the desired land use over an extended period.

Still a new deferred assessment variation is evolving. Michigan recently enacted a law which gives farmers income tax credit for property taxes in excess of 7 percent of their household income, if the farmer agrees to keep his land in farming for 10 years. If he fails to renew the agreement, he must repay the State for credit received in the previous 7 years.

[Based on "Differential Assessment and the Preservation of Farmland, Open Space, and Historic Sites," speech by Thomas F. Hady, Economic Development Division, at 1975 Property Tax Forum, International Association of Assessing Officers, June 5, Washington, D.C.]

# THE HOUSEPLANT CRAZE

Whether you talk to them, sing to them, or just pat their shiny fronds, they'll love you for it.

They're quieter than a dog, less apt to wallow on the furniture than a cat, and never need a cage, like a bird. In short, they're nice little friends to have around the house.

Time was when most people wouldn't have known what to do with a plant if, heaven forbid, someone gave them one. It seemed grandmothers and maiden aunts were the only ones who actually had the courage to raise them.

Then, suddenly, everyone, young and old alike, became turned on to our little green neighbors. Names like schefflera and diffenbachia are now almost household words, and only a real plant hater would be afraid to own a "snake" or "spider."

Today, the commercial flower and plant industry is the fastest growing segment of our agricultural economy. In fact, you might say the plant business is blooming.

Just what brought about this rather sudden change of heart? For one thing, the advent of refrigerated air cargo in the 1950's made it easier for retail outlets to buy ornamentals from faraway places like California and Colorado, the major producing areas for cut flowers, and Florida, the granddaddy of foliage plant production. This greatly expanded their stock, introducing a whole new array of exotics to the green thumb enthusiast.

About the same time, retail outlets other than traditional florists began to appear. Supermarkets, variety stores, plant boutiques, department stores, gift shops, and drugstores jumped into the act. They cater to the year-round shopper, not the typical florist patron who buys only for special occasions.

The mass marketers, who stress the rapid turnover of large quantities of merchandise, sell about 20 to 30 percent of all flowers and plants.

A preliminary ERS study on the growth of mass markets for plants and flowers showed that the production of ornamentals, especially foliage plants, has greatly increased

since 1970. Cities studied were Phoenix, Portland, Sacramento, and Oklahoma City. (A more comprehensive report, with data on 11 cities, will be published this fall.)

Retail florists in the four cities increased from 297 in 1967 to 381 in 1972. Their sales jumped from nearly $16 million to more than $28 million. Data are not available for mass markets, but it is estimated that their sales totaled about one-fourth of all ornamental sales.

Only 2 of the 68 firms with mass outlets sold fresh flowers. They either leased or franchised the flowers from a local florist, or were large national chains with well-developed systems for moving and storing the flowers themselves.

The reason more mass marketers don't deal in fresh flowers is that it's unreliable and costly. Despite advances in refrigerated air cargo, many perishables reach their destinations ruined. This is because a good part of the total transit time is spent on the ground, often in hot or cold environments with no temperature control.

In 1970, a USDA study found it took 18 hours to fly a shipment of cut flowers from the West Coast to the East Coast. Only 6 hours were actually spent in the air. The flowers sat in air cargo terminals for 8 hours waiting for loading and unloading. Another 4 hours were spent taking them to and from the airports.

Nearly all of the four cities' 560 mass outlets carried flowering plants. About 60 percent were sold for special holidays, with Christmas poinsettias and Easter lilies heading the list. Mother's and Valentine's Days bouquets were not as profitable to the mass marketers. People tended to stick with their traditional florists for those occasions.

Nearly all the mass marketers that sold flowering plants also sold bedding plants. These sales were mainly limited to a few weeks in spring and early summer.

Foliage plants were by far the most popular year-round selling item. Seems that everyone who used to be plant shy now has a green thumb. The leafy beauties were also favorites of sellers because of their durability, fast turnover, and good profit margins.

Growers or shippers delivered 80-90 percent of the ornamentals directly to the individual stores. The rest were sent to the firms' warehouses, where they were loaded on trucks and distributed to marketers.

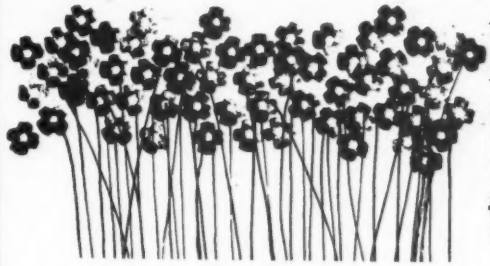
In all of the study areas but Sacramento, more than 75 percent of the flowers and plants were received from growers located more than 50 miles from the city. Most of the shipments came from California. Flowering potted plants and bedding plants were usually produced within the 50-mile radius; cut flowers and foliage plants were shipped longer distances.

Mass marketers agreed that the quality of goods sold at retail could be improved by hiring personnel knowledgeable in both horticulture and mass merchandising techniques.

They also said that consumer information should accompany every purchase. Plants should be labeled to show their common name and care instructions. In addition, pamphlets on the care of plants in general, often supplied by fertilizer or spray manufacturers, should be given free to customers.

Mass marketers said the best thing about handling flowers and plants was the extra customers they lured into the stores and the tidy profits they provided. Disadvantages were the special care required and the lack of trained management and clerks.

[Based on the article "Changing Marketing Patterns for Flowers and Plants" by Jules V. Powell, Commodity Economics Division, in the 1975 Produce Marketing Association Yearbook.]



## Florists lead the pack

Though grocery stores, garden centers, department stores, plant boutiques, and drugstores have all jumped on the plant bandwagon, most people still patronize their local florist when they want to buy flowers or plants. About 70 percent of all ornamentals are sold that way.

As they've always been, florist shops today are small and many are family owned. A third of the nearly 25,000 florists operating in 1972 had no paid employees. Those that did had only an average of four per store; they were responsible for over 90 percent of all sales.

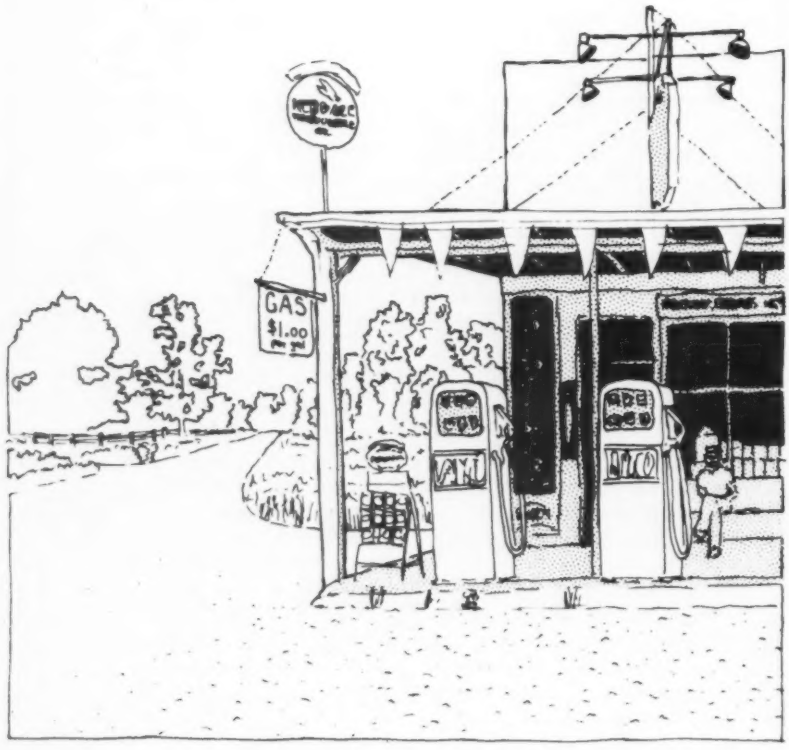
Between 1967 and 1972 the number of florists increased only slightly, while the expansion in total sales jumped 45 percent, from $1.1 billion to $1.6 billion. The spread between 1952 and 1972 was even greater—225 percent. Average sales per store increased from $49,000 to $65,000 over the 5-year period.

The total payroll for retail florists in 1972 was about $295 million. That's 56 percent more than in 1967, and 300 percent more than in 1952.

Sections of the country whose sales picked up the most over the study period were Mountain, West South Central, and South Atlantic.

[Based on the article "Retail Florists Enjoy Rapid Expansion," in the Southern Florist and Nurseryman, July, 1975, and Florist Review, August, 1975, by Stephen M. Raleigh, Jr., Commodity Economics Division.]

# The Gas Price Hike : New Dilemma for Country Folks




A few years ago, most of us wouldn't dream of walking to our neighborhood grocer. We took the car. No wonder we were thrown into a dither when we couldn't get gas during the Arab oil embargo.

Today, there's enough gas, providing you can cough up the money to pay for it. Gasoline prices skyrocketed during the embargo, and never have come down appreciably.

And now, in order to conserve precious energy, gasoline prices are going higher.

The transportation sector has been gobbling up a good portion of our Nation's energy supplies—about a fourth of it each year. Automobiles alone use over half of that.

Since hiking up gasoline prices seems to be the order of the day, it's important to consider the impact on people who depend heavily on the automobile—namely, farmers and others living in isolated parts of the country and small-town residents far from the big cities.

Farm people often use cars or light trucks in day-to-day operations. For example, they may drive to town to pick up parts for their machinery, buy fertilizer, or attend agricultural auctions. Not to mention trips for groceries, household goods, medical attention, and church. In most cases, there's no public transportation. They couldn't hop on a bus and go into town even if they wanted to.

Most rural people need cars to get to work. Over 85 percent drive their own vehicles or are passengers in somebody else's. Only 1 percent use public transportation.

In comparison, 80 percent of the urban workers go to work in cars, while another 12 percent commute by mass transit. The others walk, ride bicycles or motorcycles, or travel by other means.

Hikes in gasoline prices, coupled with the absence of an alternate means of transportation, deal an especially hard blow to farmers and other rural people, who have to drive greater distances to work than any other occupational group—11 miles per trip on the average. This is over twice the length of any other occupational sector.

Because they're so dependent on the car, more people in the country own one. In 1972, for example, 96 percent of all rural households with incomes over $5,000 owned at least one car or truck, versus 85 percent for city dwellers. In addition, almost 70 percent of the rural poor, with incomes of less than $5,000 yearly, owned a car or truck, compared with only 40 percent of the urban poor.

Families in rural areas make more automobile trips, including taxis, than people living in cities. The total miles driven is also greater. In 1969-70, rural families made about 1,600 trips a year, almost 15 percent more than the national average of 1,400,

and more than double the 700 trips made by residents of the largest urban areas.

Total miles traveled by rural households was about 15,500 a year, or 42 miles a day. This is more than families living in the smaller towns or cities, and almost twice as many as people living in the largest metropolitan areas.

Because rural residents usually lack other means of transportation, they use their cars more than anyone else. And not just for work-related reasons. They have to drive more miles for shopping and medical care, as well as recreation and leisure, than others.

However, rural folks do have one thing going for them when it comes to getting around. Cars and trucks driven on relatively open roads are more energy efficient than vehicles operated in congested urban traffic. The stop-and-go cycle of driving in heavy traffic results in greater gasoline consumption.

Urban cars require more than 8,000 BTU's (British Thermal Units —the quantity of heat to raise the temperature of 1 lb. of water 1° F) per passenger mile. That's more than any other means of transportation except airplanes. Cars traveling between cities, on the other hand, are more than twice as efficient, using only 3,400 BTU's per passenger mile, even less than urban mass transit in terms of energy used. This is partly because there are usually more passengers per car in intercity travel.

Just how much gasoline is guzzled by rural travel? Assuming that all rural automobile miles were driven in relatively uncongested areas, with optimum conditions of terrain, driver operations, load, vehicle weight, and mechanical condition, the rural family that drives over 15,000 miles a year would consume about 1,000 gallons of gasoline annually. On the other hand, urban families living in the largest cities, and traveling in congested conditions, would use about 700 gallons for the 8,000-plus miles they drive each year. Thus, the rural household consumes about 40 percent more gasoline, but travels almost twice as many miles as the urban household.

Boosting taxes on gasoline by 25 cents a gallon to conserve energy would jump the cost of transportation for the rural family by $250; $175 for the city family. However, since people living in the country probably have fewer opportunities to reduce automobile travel distances or switch to alternate means of travel welfare impacts would be potentially greater for them.

For example, urban households can offset some of the increase in gasoline prices by switching to public transportation or carpooling, or by traveling shorter distances to shopping and medical care. Rural people rarely have this option. Also, since public transit may receive preferred treatment with regard to higher fuel prices (discounts, subsidies), urban households would, in effect, be receiving a bonus.

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***What all this boils down to is that rural families would have less purchasing power than others as a result of a jump in gasoline prices. The purchase of any product has two cost factors—the market price and the cost of the transportation to obtain it. Since country folk can rarely cut the gross cost of an item by lessening the transportation factor, their dollar is worth less than their city cousins'.***

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Auto fuel conservation is a must if the U.S. is to achieve energy independence; however, it's hoped that any energy policy will have equitable effects on urban and rural populations. Unfortunately, preliminary indications have shown greater impacts on rural households than on urban ones.

[Based on a speech by Erhardt O. Rupprecht, National Economic Analysis Division, entitled "Impacts of Higher Fuel Prices on Rural Households," given at the American Agricultural Economics Association meeting, August 12, 1975, Columbus, Ohio.]

## The Real Thing: Maple Goodness

Most any pancake lover would drool at the thought of a stack of hot cakes drenched in pure maple sirup. However, more often than not he would have to settle for imitation maple sirup, or a blend of maple and sugar sirup, because of the cost.

Pure maple sirup—the highest priced natural sweetener in the U.S. —brought an average farm price of $10.50 per gallon for this year's crop, almost $4 more than in 1970.

Although its high retail price discourages consumers from buying it in pure form, producer prices haven't been high enough to keep production up. Therefore, output has been declining since 1920, hitting an all-time low in 1972 of just over 11½ million pounds.

But take heart. The industry feels sure that the 1972 crop signaled an end of the downtrend, with this year's production up 40 percent over the record low.

Record sugar prices have been somewhat responsible for the recent boost in maple sirup production by narrowing the price gap between the two sweeteners. Other factors are: (1) new people moving into traditional maple sirup producing areas, (2) increased maple sirup production by farmers who have quit dairying, (3) more contractors and construction workers producing maple sirup during winter months, (4) more retired and unemployed persons producing it for additional income, (5) increasing consumer demand for natural foods, and (6) technical innovations in production —the traditional sap bucket is becoming a thing of the past.

And to whet our appetites for the real thing, the industry is forming an International Maple Sirup Institute to promote pure sirup in the U.S. and Canada.

[Based on "The Maple Sweetener Situation—Trends and Prospects," by Fred Gray, Commodity Economics Division, appearing in *The Sugar and Sweetener Situation*, SSS-1, August 1975.]

# Recent Publications

*Single copies of the publications listed here are available free from The Farm Index, Economic Research Service, Rm. 1664–So., U.S. Department of Agriculture, Washington, D.C. 20250. However, publications indicated by (*) may be obtained only by writing to the experiment station or university. For addresses, see July and December issues of The Farm Index.*

**Economic Impacts of Controlling Surface Water Runoff From Fed-Beef Production Facilities.** J. B. Johnson, Gary A. Davis, and C. Kerry Gee, Commodity Economics Division, and J. Rod Martin, National Economic Analysis Division. AER-292.

Environmental Protection Agency guidelines pose substantial investment problems and increased operating costs for fed-beef producers in the U.S. According to this study, investment costs for facilities and equipment needed to control runoff problems in the 18 leading fed-beef producing States would total $132-136 million. Added production costs would total another $20 million annually.

**Training in Agriculture.** Foreign Development Division.

This pamphlet describes the various training programs in agriculture which are open to other nations. Training is offered both in the U.S. and in other countries. Programs range from specialized courses to degree programs to on-the-job training.

**The Economic and Social Condition of Nonmetropolitan America in the 1970's.** Economic Development Division. Senate Committee print 51-824.

Prepared for the Senate Committee on Agriculture and Forestry, this report updates a similar 1971 report. Although the data are presented with a metro-nonmetro dichotomy, the focus is mainly on nonmetro people and places.

**Farm Income Statistics.** National Economic Analysis Division. Statis. Bul. 547.

This bulletin contains tables which show three basic series of data: (1) farm income revisions for 1972-74, as well as the current income picture, (2) historical data on farm and personal income, and distribution of farm income and number of farms by value of sales class, as well as estimates of off-farm income of farm operator families by various sales classes. These series are mainly based on information from the Statistical Reporting Service and the censuses of agriculture, but also use some information from other government agencies and private sources.

**Differences in Housing Credit Terms and Usage Between Metro and Nonmetro Areas in the United States.** Hughes H. Spurlock, Economic Development Division. AER-305.

According to this study, home buyers in rural areas in 1971 paid higher interest rates on conventional mortgages and had shorter repayment periods than did their urban counterparts. They also had fewer choices of lenders. Even so, it appears that credit conditions did improve somewhat during the 1960's in rural areas.

**Factors Related to Participation in the Food Stamp Program.** Economic Development Division. AER-298.

High unemployment, low income or poverty, high welfare recipient rates, a low proportion of population in the labor force, and a high percentage of the population under 18 years of age were found to be the major factors contributing to food stamp participation. The 1,697 U.S. counties issuing food stamps in May 1970 were the basis of the study.

**Agricultural Trade of the Western Hemisphere: A Statistical Review, 1963-73.** Foreign Demand and Competition Division. Statis. Bul. 546.

Through 105 tables, this report traces U.S. agricultural trade with countries and regions of the Western Hemisphere. Trade is broken down by destination, origin, and principal commodities. Data are given in both quantity and value, and are grouped by Standard International Trade Classification.

**Reserve Stocks of Grain: A Review of Research.** Rodney L. Walker and Jerry Sharples, Commodity Economics Division. AER-304.

From a review of the research and theory on reserve grain stocks, this study concludes there is no one optimal stocks policy. However, the study does give some pointers for further research: (1) Future studies should more thoroughly take into account the demand for U.S. exports; (2) they should examine substitutability in demand for all food and feed grains and oilseeds; (3) they should define supply not only as a function of stochastic yields, but also as a function of planted acres, where acreage responds to market conditions and public farm programs; and (4) they should examine public versus private control of stocks.

**Socioeconomic Characteristics of Growing and Declining Nonmetropolitan Counties, 1970.** David L. Brown, Economic Development Division. AER-306.

According to this survey, counties which are losing population lag behind population-gaining counties in family income, participation of women in the labor force, and employment in manufacturing. They also have higher than average employment in low-wage and low-skill extractive industries. The study concludes that special assistance may be required to ensure a decent standard of living in some of the affected counties.

# Economic Trends

| Item | Unit or Base Period | 1967 | 1974 Year | 1974 June | 1975 April | 1975 May | 1975 June |
|---|---|---|---|---|---|---|---|
| **Prices:** | | | | | | | |
| Prices received by farmers | 1967=100 | — | 184 | 166 | 170 | 178 | 182 |
| Crops | 1967=100 | — | 214 | 202 | 188 | 189 | 192 |
| Livestock and products | 1967=100 | — | 164 | 142 | 157 | 171 | 176 |
| Prices paid, interest, taxes and wage rates | 1967=100 | — | 169 | 166 | 182 | 183 | 185 |
| Family living items | 1967=100 | — | 161 | 160 | 173 | 175 | 176 |
| Production items | 1967=100 | — | 172 | 168 | 185 | 187 | 190 |
| Ratio [1] | 1967=100 | — | 109 | 100 | 93 | 97 | 98 |
| Wholesale prices, all commodities | 1967=100 | — | 160.1 | 155.7 | 172.1 | 173.2 | 173.7 |
| Industrial commodities | 1967=100 | — | 153.8 | 153.6 | 169.7 | 170.3 | 170.7 |
| Farm products | 1967=100 | — | 187.7 | 168.6 | 177.7 | 184.5 | 186.2 |
| Processed foods and feeds | 1967=100 | — | 170.9 | 157.4 | 179.4 | 179.0 | 179.7 |
| Consumer price index, all items | 1967=100 | — | 147.7 | 146.9 | 158.6 | 159.3 | 160.6 |
| Food | 1967=100 | — | 161.7 | 160.3 | 171.2 | 171.8 | 174.4 |
| **Farm Food Market Basket:** [2] | | | | | | | |
| Retail cost | 1967=100 | — | 161.9 | 160.2 | 168.2 | 169.1 | 172.0 |
| Farm value | 1967=100 | — | 177.6 | 165.7 | 175.7 | 182.1 | 190.8 |
| Farm-retail spread | 1967=100 | — | 152.0 | 156.7 | 163.4 | 160.9 | 161.6 |
| Farmers' share of retail cost | Percent | — | 43 | 40 | 41 | 42 | 43 |
| **Farm Income:** [3] | | | | | | | |
| Volume of farm marketings | 1967=100 | — | 111 | 98 | 91 | 90 | 91 |
| Cash receipts from farm marketings | Million dollars | 42,817 | 93,521 | 6,056 | 5,571 | 5,702 | 5,900 |
| Crops | Million dollars | 18,434 | 52,097 | 3,172 | 2,135 | 2,008 | 2,400 |
| Livestock and products | Million dollars | 24,383 | 41,424 | 2,884 | 3,436 | 3,694 | 3,500 |
| Realized gross income [4] | Billion dollars | 49.9 | 101.1 | 97.6 | — | — | 96.1 |
| Farm production expenses [4] | Billion dollars | 38.3 | 78.4 | 73.2 | — | — | 75.6 |
| Realized net income [4] | Billion dollars | 11.6 | 27.7 | 24.4 | — | — | 20.5 |
| **Agricultural Trade:** | | | | | | | |
| Agricultural exports | Million dollars | — | 21,994 | 1,704 | 1,758 | 1,496 | 1,390 |
| Agricultural imports | Million dollars | — | 10,247 | 842 | 762 | 688 | 827 |
| **Land Values:** | | | | | | | |
| Average value per acre | Dollars | [6] 168 | [7] 339 | — | — | — | [8] 354 |
| Total value of farm real estate | Billion dollars | [6] 181.9 | [7] 355 | — | — | — | [8] 370 |
| **Gross National Product:** [4] | Billion dollars | 793.9 | 1,397.4 | 1,383.8 | — | — | 1,439.7 |
| Consumption | Billion dollars | 492.1 | 876.7 | 869.1 | — | — | 938.6 |
| Investment | Billion dollars | 116.6 | 209.4 | 211.8 | — | — | 148.1 |
| Government expenditures | Billion dollars | 180.1 | 309.2 | 304.4 | — | — | 338.1 |
| Net exports | Billion dollars | 5.2 | 2.1 | —1.5 | — | — | 15.0 |
| **Income and Spending:** [5] | | | | | | | |
| Personal income, annual rate | Billion dollars | 629.3 | 1,150.5 | 1,143.5 | 1,203.1 | 1,214.3 | 1,244.1 |
| Total retail sales, monthly rate | Million dollars | 26,151 | 44,815 | 44,593 | 46,712 | 48,124 | 48,758 |
| Retail sales of food group, monthly rate | Million dollars | 5,759 | 9,980 | 9,782 | 10,598 | 10,875 | 11,031 |
| **Employment and Wages:** [5] | | | | | | | |
| Total civilian employment | Millions | 74.4 | [9] 85.9 | [9] 86.1 | [9] 84.1 | [9] 84.4 | [9] 84.4 |
| Agricultural | Millions | 3.8 | [9] 3.5 | [9] 3.3 | [9] 3.2 | [9] 3.5 | [9] 3.3 |
| Rate of unemployment | Percent | 3.8 | 5.6 | 5.2 | 8.9 | 9.2 | 8.6 |
| Workweek in manufacturing | Hours | 40.6 | 40.0 | 40.1 | 39.1 | 39.0 | 39.1 |
| Hourly earnings in manufacturing, unadjusted | Dollars | 2.83 | 4.40 | 4.38 | 4.71 | 4.73 | 4.76 |
| **Industrial Production:** [5] | 1967=100 | — | 125 | 126 | 110 | 110 | 110 |
| **Manufacturers' Shipments and Inventories:** [5] | | | | | | | |
| Total shipments, monthly rate | Million dollars | 46,449 | 81,723 | 81,166 | 80,101 | 79,180 | 80,281 |
| Total inventories, book value end of month | Million dollars | 84,655 | 150,404 | 133,541 | 150,184 | 148,951 | 148,051 |
| Total new orders, monthly rate | Million dollars | 46,763 | 83,297 | 85,176 | 78,368 | 78,510 | 79,827 |

[1] Ratio of index of prices received by farmers to index of prices paid, interest, taxes, and farm wage rates. [2] Average annual quantities of farm food products purchased by urban wage earner and clerical worker households (including those of single workers living alone) in 1959-61—estimated monthly. [3] Annual and quarterly data are on 50-State basis. [4] Annual rates seasonally adjusted 1st quarter. [5] Seasonally adjusted. [6] As of March 1, 1967. [7] As of Nov. 1, 1974. [8] As of March 1, 1975. Beginning January 1972 data not strictly comparable with prior data because of adjustment to 1970 Census.

Sources: U.S. Dept. of Agriculture (Farm Income Situation, Marketing and Transportation Situation, Agricultural Prices, Foreign Agricultural Trade and Farm Real Estate Market Developments); U.S. Dept. of Commerce (Current Industrial Reports, Business News Reports, Monthly Retail Trade Report and Survey of Current Business); and U.S. Dept. of Labor (The Labor Force and Wholesale and Consumer Price Index).

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